



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

HL

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,573	07/25/2003	Yoshiaki Hirano	2003_1020A	9550
513	7590	09/28/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			KEYS, ROSALYND ANN	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			1621	

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,573

Applicant(s)

HIRANO ET AL.

Examiner

Rosalynd Keys

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/19/04</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1621

DETAILED ACTION

Status of Claims

1. Claims 1-12 are pending.
Claims 1-9, 11 and 12 are rejected.
Claim 10 is objected.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement filed May 19, 2004 has been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Matayabas, Jr. et al. (US 5,536,882).

Matayabas, Jr. et al. teach preparing polyether compounds by reacting 3,4-

Art Unit: 1621

epoxy-1-butene with an alcohol such as phenol, cresol, hydroquinone, resorcinol, etc. in the presence of an acidic catalyst, such as a strongly acidic ion exchange resin (see entire disclosure, in particular column 3, line 10 to column 4, line 32).

6. Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirano et al. (JP 2001-302729, computer generated English translation).

Hirano et al. teach a crosslinked polymer, useful as an ion exchange resin or polymer catalyst (see paragraph 0002-0009). This crosslinked polymer is disclosed as having excellent heat-resistant resolvability (see paragraph 0061). This crosslinked polymer can be used as a resin catalyst in the reaction of a cyclic hetero compound, i.e. oxirane, with a phenol such as phenol, hydroquinone, bisphenol A, bisphenol S, bisphenol F, etc. (see paragraphs 0067, 0088-0089, 0128).

7. Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirano et al. (US 2002/0028887 A1).

Hirano et al. teach a crosslinked polymer, useful as an ion exchange resin or polymer catalyst (see paragraph 0001 and paragraphs 0047-0061). This crosslinked polymer is disclosed as having resistance to thermal decomposition (see paragraphs 0114-115). This crosslinked polymer can be used as a catalyst in the reaction of a cyclic hetero compound, i.e. oxirane, with a phenol such as phenol, hydroquinone, A, cresol, catechol, resorcinol, bisphenol A, bisphenol S, bisphenol F, etc. (see paragraphs 0174, 0196, and 0233-0239).

8. Claims 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Dressler (US 5,059,723).

Dressler teaches hydroxyalkylated phenols which are purified by crystallization

from a polar solvent (see entire disclosure, in particular column 5, lines 3-6). The products are disclosed as having a purity of at least 96% (see claims 18).

9. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Summer et al. (WO 91/16292).

Summer et al. teach a high purity aromatic ether having an alcoholic hydroxyl group, i.e., resorcinol bis(dihydroxyethyl)ether (see entire disclosure). The purified product is not disclosed as having any metal or halogen content.

Allowable Subject Matter

10. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalyn Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M, R and F 3:00-8:00 pm and T-W 5:30-10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rosalyn Keys
Primary Examiner
Art Unit 1621

September 26, 2004